

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-10** are rejected under 35 U.S.C. 102 (b) as being anticipated by *Kawano et al* (US 6,404,131).
3. Regarding claim 1, Kawano discloses a luminous body comprising a housing 16 with a light emission surface 11a and a plurality of light sources 2 arranged in the housing wherein the housing comprises at least a first optical medium 11 with a first optical scattering power into which medium the light of the light sources is coupled and at least a second optical medium 12 with a second optical scattering power such that the light propagating in the second optical medium is at least substantially coupled thereinto from the first optical medium and wherein the scattering power of at least one of the media is chosen with a view to influencing the flow of light in the housing such that a predefinable brightness distribution of the light over the light emission surface is achieved (see Figures 5 and 7, and column 5, line 27 through column 6, line 45).
4. Regarding claim 2, the luminous body includes at least one layer 10 by means of which the second optical medium 12 is screened off at least substantially against a

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direct incidence of the light originating from a light source (see Figures 2 and 5, and column 6, line 23-30).

5. Regarding claim 3, the layer 10 is a layer that reflects on both sides (see Figure 2 and column 4, line 35 through column 5, line 28).

6. Regarding claim 4, the second optical medium 12 is introduced into a region between the at least one light source 2 and the light emission surface 11a (see Figure 5).

7. Regarding claim 5, the first optical medium 11 is an optical waveguide plate and the light sources are arranged in at least one cavity 13 of the optical waveguide plate (see Figures 4 and 5, and column 5, lines 35-65).

8. Regarding claim 6, the scattering power of the second optical medium 12 is such that it compensates at least substantially for the reduction in the flow of the light at least one of the cavities 13 provided in the first optical medium (see column 6, lines 38-45).

9. Regarding claim 7, the second optical medium 12 is introduced into at least one region between at least one cavity 13 and the light emission surface 11a (see Figure 5).

10. Regarding claim 8, the second optical medium 12 comprises light-scattering particles (see Figure 5 and column 5, lines 44-50).

11. Regarding claim 9, the light-scattering particles 12 are globules with an optical refractive index different from that of the surrounding material (see column 5, lines 47-50).

12. Regarding claim 10, this limitation relates to formation of the light-scattering particles, and it has been held that the method of forming the device is not germane to

the issue of patentability of the device itself. Accordingly, this limitation is given no patentable weight.

13. **Claims 1-3 and 5-6** are rejected under 35 U.S.C. 102 (b) as being anticipated by *Greiner* (US 2002/0097578).

14. Regarding claim 1, Greiner discloses a luminous body comprising a housing 17 with a light emission surface 11 and a plurality of light sources 21 arranged in the housing wherein the housing comprises at least a first optical medium 1 with a first optical scattering power into which medium the light of the light sources is coupled and at least a second optical medium 3 with a second optical scattering power such that the light propagating in the second optical medium is at least substantially coupled thereinto from the first optical medium and wherein the scattering power of at least one of the media is chosen with a view to influencing the flow of light in the housing such that a predefinable brightness distribution of the light over the light emission surface is achieved (see Figures 1 and 2, and paragraphs [0015]-[0021]).

15. Regarding claim 2, the luminous body includes at least one layer 204 by which the second optical medium 3 is screened off at least substantially against a direct incidence of the light originating from a light source 21 (see Figure 2 and paragraph [0018]).

16. Regarding claim 3, the layer 204 reflects on both sides (see paragraph [0018]).

17. Regarding claim 5, the first optical medium 1 is an optical waveguide plate and the light sources 21 are arranged in at least one cavity 21 of the optical waveguide plate (see Figure 2 and paragraph [0018]).

18. Regarding claim 6, the scattering power of the second optical medium 3 is such that it compensates at least substantially for the reduction in the flow of the light at least one of the cavities 20 provided in the first optical medium.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. **Claims 4 and 7-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Greiner* as applied to claim 1 above, and further in view of *Kawano et al* (US 6,404,131).

21. Regarding claims 4 and 7-10, *Greiner* does not disclose a second optical medium comprise of light-scattering particles with an optical refractive index different from that of the surrounding material that is introduced into a region between the at least one light source 21 or cavity 20 and the light emission surface 11. However, *Kawano* specifically teaches a waveguide 11 with a second optical medium 12 comprises of light-scattering particles with an optical refractive index different from that of the surrounding material which is introduced into a region between at least one light source 2 or cavity 13 and a light emission surface 11a (see *Kawano*, Figure 5 and column 5, line 27 through column 6, line 45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to introduce a second optical

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medium comprised of light-scattering particles into the waveguide 1 in Greiner as taught by Kawano so that the light is distributed substantially uniformly throughout the waveguide and released out uniformly from the emission surface 11 (see Kawano, column 6, lines 40-45).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN P. GRAMLING whose telephone number is (571)272-9082. The examiner can normally be reached on MONDAY-FRIDAY 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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